

Appl. No. 10/064,050
Amdt. dated May 12, 2006
Reply to Office action of December 12, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

- 1 (currently amended): A method for calibrating an image generated from a scanner when
5 scanning a document, ~~the method the scanner~~ comprising:
providing a scanner containing a housing comprising a transparent platform
positioned on the housing for placing the document thereon and a track positioned
inside the housing parallel with a scanning direction of the scanner;
projecting light on the document with a light-distributing device positioned above the
10 transparent platform ~~for projecting light on the document;~~
~~a track positioned inside the housing parallel with a scanning direction of the scanner;~~
and
a scanning module ~~movably positioned on the track for sensing the light passing~~
~~through the document and generating a corresponding scan signal;~~
15 moving a scanning module along the track for sensing the light, which is generated
from the light-distributing device and passes through the transparent platform, and
generating a corresponding calibration signal when no document is positioned on
the transparent platform; and
using the calibration signal, which is generated from the scanning module moving to a
20 plurality of positions on the track without the document positioned on the
transparent platform, to amplify or decay a scan signal generated by the
scanning module when the document is positioned on the transparent platform to
be scanned and when the scanning module reaches the corresponding plurality
of positions on the track to scan the document.
25 ~~the method comprising:~~
~~amplifying or decaying the scan signal generated from the scanning module according~~
~~to a position of the scanning module located on the track when the scanning~~

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~~module slides along the track to scan the document.~~

2 (cancelled).

5 3 (currently amended): The method of ~~claim 2~~ claim 1 wherein the scan signal is amplified by a correction factor when the scan signal is weaker than a standard value, and the scan signal approaches the standard value after being amplified by the correction factor.

10 4 (currently amended): The method of ~~claim 2~~ claim 1 wherein the scan signal is decayed by a correction factor when the scan signal is stronger than a standard value, and the scan signal approaches the standard value after being decayed by the correction factor.

15 5 (currently amended): The method of ~~claim 2~~ claim 1 further comprising recording the calibration signal.

20 6 (original): The method of claim 1 wherein the scanning module comprises a plurality of sensors, and each sensor is used for sensing the light projecting on the scanning module to generate a corresponding pixel-scan-signal so that the scan signal generated from the scanning module comprises a plurality of pixel-scan-signals generated from the sensors;
the method further comprising:
amplifying the pixel-scan-signal generated from one of the sensors with
25 corresponding correction factor when the pixel-scan-signal is weaker than a standard value; and
decaying the pixel-scan-signal generated from one of the sensors with
corresponding correction factor when the pixel-scan-signal is stronger than the

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standard value.

7 (original): The method of claim 6 further comprising:

5 moving the scanning module along the track for sensing the light, which is
generated from the light-distributing device and passes through the transparent
platform, and each sensor generating a corresponding pixel-calibration-signal
when no document is positioned on the transparent platform; and
determining the correction factor of the pixel-scan-signal, which is generated from
the scanning module scanning the document at a first position on the track,
10 according to the corresponding pixel-calibration-signal generated from the
sensor of the scanning module located at the first position on the track when no
document is positioned on the transparent platform.

8 (currently amended): A scanner comprising:

15 a housing comprising a transparent platform positioned on the housing for placing a
document thereon;
a light-distributing device positioned above the transparent platform for projecting
light on the document;
a track positioned inside the housing parallel with a scanning direction of the scanner;
20 a scanning module movably positioned on the track for sensing the light passing
through the document and generating a corresponding scan signal; and
a processing circuit for controlling the scan signal;
~~wherein the processing circuit amplifies or decays the scan signal according to a
position of the scanning module located on the track when the scanning module
slides along the track to scan the document.~~
25 wherein the scanning module moves along the track for sensing the light, which is
generated from the light-distributing device and passes through the transparent
platform, and generates a corresponding calibration signal when no document is

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5 positioned on the transparent platform, and the processing circuit uses the calibration signal, which is generated from the scanning module moving to a plurality of positions on the track without the document positioned on the transparent platform, to amplify or decay the scan signal when the scanning module moves to the corresponding plurality of positions on the track for scanning the document which is positioned on the transparent platform.

9 (cancelled).

10 10 (currently amended): The scanner of ~~claim 9~~ claim 8 wherein the processing circuit amplifies the scan signal by an correction factor when the scan signal is weaker than a standard value, and the scan signal approaches the standard value after being amplified by the correction factor.

15 11 (currently amended): The scanner of ~~claim 9~~ claim 8 wherein the processing circuit decays the scan signal by a correction factor when the scan signal is stronger than a standard value, and the scan signal approaches the standard value after being decayed by the correction factor.

20 12 (currently amended): The scanner of ~~claim 9~~ claim 8 further comprising a recording circuit for storing the calibration signal.

25 13 (currently amended): The scanner of ~~claim 9~~ claim 8 being connected to a computer, and the calibration signal being stored in the computer.

14 (original): The scanner of claim 8 wherein the scanning module comprises a plurality of sensors, each sensor is used for sensing the light projecting on the scanning module to generate a corresponding pixel-scan-signal, the scan signal generated

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from the scanning module comprises a plurality of the pixel-scan-signals generated from the sensors, and the processing circuit amplifies and decays pixel-scan-signals generated from different sensors with corresponding correction factors after comparing the pixel-scan-signals with a standard value.

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15 (original): The scanner of claim 14 wherein the scanning module moves along the track for sensing the light which is generated from the light-distributing device and passes through the transparent platform, uses each sensor for generating a corresponding pixel-calibration-signal when no document is positioned on the transparent platform, and the processing circuit determines the correction factor of
10 the pixel-scan-signal, which is generated from the scanning module scanning the document at a first position on the track, according to the corresponding pixel-calibration-signal generated from the sensor of the scanning module located at the first position on the track when no document is positioned on the transparent
15 platform.